

401 KAR 8:020. Public and semipublic water systems; submetering; general provisions.

RELATES TO: KRS 211.350-211.392, 223.160-223.220, 224.10-100, 224.10-110, 224.16-050, 369, 40 C.F.R. 141, 142.14, 142.15, 142.16, 142.20, 142.21, 142.40-142.65

STATUTORY AUTHORITY: KRS 223.200, 224.10-100(28), 224.10-110(2), 40 C.F.R. 141.3, 141.31, 141.75, 142.14, 142.15, 142.20, 142.21, 142.40-142.65, 42 U.S.C. 300f-300j-26

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(28) and 224.10-110(2) authorize the cabinet to promulgate administrative regulations for the regulation and control of the purification of water for public and semipublic use. This administrative regulation establishes the general provisions for regulating public and semipublic water supplies.

Section 1. A public or semipublic water system shall be subject to the requirements of 401 KAR Chapter 8, except those exempted in 40 C.F.R. 141 and 142.

Section 2. Submetering. (1) A property using a submeter as defined by 401 KAR 8:010 shall not be considered a public water system as defined by 40 C.F.R. 141.2 and, except for this administrative regulation and the emergency authority provisions established in Section 1431 of the federal Safe Drinking Water Act, shall be exempt from the requirements of 401 KAR Chapter 8.

(2)(a) A property using a submeter as defined by 401 KAR 8:010 and exempt from the requirements of 401 KAR Chapter 8 shall:

1. Receive all of its water from a public water system and shall not change the quality of water provided to customers;
2. Be located on property owned by a single person, entity, individual, or a co-op or condominium association of property owners;
3. Not be regulated as a water utility by the Kentucky Public Service Commission; and
4. Not charge tenants an amount that exceeds tenants' share of the actual amount charged by the public water system to the owner or operator of a property using a submetered system, based on the tenants' actual water usage in proportion to the total amount of water used for the entire submetered property.

(b) The owner or operator of a property using a submetered system shall designate a person or organization as the owner or operator of the submetered system and shall provide the name, address, and phone number of the designated owner or operator upon request by the cabinet.

(c) The owner or operator of a property using a submetered system shall certify to the cabinet in writing that the:

1. Submetered system does not have any cross connections; and
2. Applicable provisions of 815 KAR 20:120 have been met.

(3) An advisory received by the owner or operator pursuant to Section 3(9) of this administrative regulation shall be disseminated to property tenants in the manner established in Section 3(10) of this administrative regulation.

(4) Public notices and consumer confidence reports received by the owner or operator pursuant to 401 KAR 8:075 shall be disseminated to property tenants in the next billing period.

Section 3. (1) Public and semipublic water systems. A person shall not operate or commence operation of a public or semipublic water system except in compliance with the provisions of 401 KAR Chapter 8 and 40 C.F.R. 141. A water supply system constructed prior to

November 11, 1990 may be continued in use, if the operation, maintenance, bacteriological, chemical, physical, and radiological standards comply with 401 KAR Chapter 8, or the system obtains a variance or exemption from those standards in accordance with 40 C.F.R. 141.

(2)(a) A cross-connection shall be prohibited.

(b) The use of automatic devices, such as a reduced pressure zone back flow preventer and a vacuum breaker, may be approved to protect public health, in lieu of air gap separation.

(c) A combination of air gap separation and an automatic device shall be required if determined by the cabinet to be necessary due to the degree of hazard to public health.

(d) Every public water system shall determine if or where a cross-connection exists and shall immediately eliminate it.

(3) A bypass shall not be created or maintained without the prior written approval of the cabinet stating the approved circumstances for establishment of a bypass, its design, and the exact conditions for its use.

(4) An auxiliary intake shall not be used in direct connection with a public or semipublic water system except with prior written approval from the cabinet stating the emergency condition that necessitates the intake.

(5) The plumbing system serving the purification plant and auxiliary facilities shall discharge to a sewer system if available.

(a) If a sewer is not available, the connection shall be made to a sewage disposal facility approved pursuant to KRS Chapter 211.350 through 211.392 or 224.16-050.

(b) There shall not be connections between the sewer system and a filter backwash, filter-to-waste drain, or clearwell overflow line, unless an air gap is provided between the drain and overflow line and the sanitary storm sewer or natural drainage system, so as to preclude the possibility of back-up of sewage or waste into the drain or overflow line.

(6) The owner or operator of a public water system shall operate and maintain the facilities and systems of treatment, intake, and distribution to comply with the provisions of 401 KAR Chapter 8 including effective performance; preventive maintenance; operator staffing and training pursuant to 401 KAR 8:030, 11:040, and 11:050; establishing representative sample points that comply with the requirements of 401 KAR Chapter 8; and adequate process controls for testing, including quality assurance procedures.

(7) Reports to the cabinet.

(a) The supplier of water shall provide a complete monthly operating report to the cabinet, which shall be received at the Division of Water, 300 Sower Boulevard, Frankfort, Kentucky 40601 not later than ten (10) days after the end of the month for which the report is filed.

1. A completed report shall include:

a. Volume of water treated;

b. Average number of hours per day water is being treated;

c. Type and amount of chemicals added;

d. Test results appropriate to be reported by the plant; and

e. The dated original signature, or equivalent, pursuant to KRS Chapter 369, of the owner or authorized agent.

2. A supplier of water shall submit the reports required by 40 C.F.R. 141.75(b) to the cabinet not later than ten (10) days after the end of each month the public water system serves water to the public.

3. A public water system shall report to the cabinet in accordance with 40 C.F.R. 141.31.

(b) The public water system shall submit to the cabinet a completed Annual Water System Data form, DOW0801, (April 2017) not later than January 10 of each year.

(c) Reports of failure to comply. A public water system shall report to the cabinet within forty-

eight (48) hours, by phone or in writing, the failure to comply with a monitoring requirement of 401 KAR Chapter 8 or any other provision of 401 KAR Chapter 8.

(d) Emergency reports.

1. If a public water system experiences a line break or loss of pressure as established in 401 KAR 8:150, Section 4(2)(e), loss of disinfection, or other event that may result in contamination of the water, the public water system shall immediately report to the cabinet by calling the Division of Water in Frankfort at (502) 564-3410 or the appropriate regional field office of the Division of Water.

2. If a report required by this paragraph is made during other than normal business hours, it shall be made through the twenty-four (24) hour environmental emergency telephone number, (800) 928-2380.

(8) Records to be maintained. An owner or operator of a public water system shall keep the records established in 40 C.F.R. 141.33 on the premises or readily accessible to cabinet staff inspecting the system.

(9) Boil water and consumer advisories.

(a) Boil water advisories.

1. A public water system or semipublic water system shall issue a boil water advisory if the system believes an advisory is warranted.

2. The cabinet may direct that a boil water advisory be issued upon:

a. The reception of confirmed positive bacteriological results, for example, *E. coli* or fecal coliform, in at least one (1) sample; or

b. Other circumstances that warrant an advisory for the protection of public health.

3. The cabinet may, if circumstances warrant for the protection of public health, issue a boil water advisory directly, rather than rely on a public or semipublic water system to issue the advisory.

4. A boil water advisory shall remain in effect until the cabinet approves the lifting of the advisory based on bacteriological results showing coliform bacteria are not present in the water.

(b) Consumer advisory.

1. The cabinet may issue a consumer advisory if:

a. Conditions within a public water system or semipublic water system indicate a possible adverse health effect from consumption of the water distributed by the system; or

b. Other information of interest to the consumer exists.

2. The advisory shall notify affected persons of a required or recommended action.

(c) A public or semipublic water system shall:

1. Immediately notify the local health department that serves the area affected if a boil water advisory or consumer advisory is issued.

a. The notification may be made by telephone, email, or fax machine for an occurrence during normal business hours.

b. For an occurrence after normal business hours, the public or semipublic water system shall notify the affected local health department in a manner agreed upon by the system and affected health department; or

2. Develop a protocol with a local health department that describes when and how the system shall notify the affected health department if the system issues a boil water advisory or consumer advisory. The protocol shall address:

a. For which types of advisories the system shall notify the affected health department;

b. What procedures shall be used to notify and under what circumstances;

c. How soon after the occurrence the notification shall be made; and

d. To whom the notification shall be made, during and after business hours.

(10) How to issue an advisory.

(a) A boil water advisory or consumer advisory shall be issued through newspapers, radio, television, or other media having an immediate public impact.

(b) As a health and safety measure, the water system shall repeat the notification during the period of imminent danger at intervals that maintain public awareness.

(c)1. The advisory shall be readily understandable and shall include instructions for the public, as well as an explanation of the steps being taken to correct the problem.

2. Boiling instructions shall caution to boil water to be used for consumption by boiling the water for at least three (3) minutes at a rolling boil.

(11) Maps.

(a) A public or semipublic water system shall have on the premises, or readily accessible to cabinet staff inspecting the system, an up-to-date map of the distribution system. The map shall, at a minimum, show:

1. Line size;
2. Cutoff valves;
3. Fire hydrants;
4. Flush hydrants;
5. Tanks;
6. Booster pumps;
7. Chlorination stations;
8. Connection to emergency or alternative sources;
9. Wholesale customer master meters; and
10. Type of piping material in the distribution system and its location.

(b)1. If a public water system is not able to comply with the requirements of paragraph (a) of this subsection, the system may petition the cabinet to modify this requirement.

2. The petition for modification shall state specifically what portion of the requirements of paragraph (a) of this subsection is not practical and why.

(12) Operation and maintenance manual.

(a) Each public water system shall develop and keep on the premises, for operators and employees of the system, an operation and maintenance manual that includes:

1. A detailed design of the plant;
2. Daily operating procedures;
3. A schedule of testing requirements designating who is responsible for the tests;
4. Safety procedures for operation of the facility, including storage and inventory requirements for materials and supplies used by the facility; and
5. Procedures for issuing a boil water advisory and consumer advisory as established in this administrative regulation, including notification to the public and local health department and consumers.

(b) The operation and maintenance manual shall be updated as necessary, but not less than annually, and shall be available for inspection by the cabinet.

(c) A public water system serving fewer than 100 people or thirty (30) service connections may request that the cabinet waive the requirements of paragraphs (a) and (b) of this subsection. The request shall be in writing and any waiver granted by the cabinet shall be in writing and be retained by the public water system for examination by cabinet personnel.

(13) Flushing. Each community water system shall establish and maintain a flushing program that ensures that:

- (a) Dead end and low usage mains shall be flushed periodically;
- (b) Drinking water standards shall be met;

(c) Sediment and air shall be removed; and

(d) Disinfectant residuals established in 401 KAR 8:150, Section 1 shall be maintained.

(14) A person shall not introduce into the water supply system a substance that may have a deleterious physiological effect, or for which physiological effects may not be known.

(15) Certified lab analysis required. For the purpose of determining compliance with the sampling requirements of 401 KAR Chapter 8, samples shall be analyzed by a laboratory certified by the cabinet as established in 401 KAR 8:040, except that measurements for turbidity, disinfectant residuals, and other parameters established by 40 C.F.R. 141.28 and 141.131 may be performed by a certified operator or an individual under the supervision of a certified operator.

(16) Right of entry. The cabinet may enter an establishment, facility, or other property of public and semipublic water supplies in order to determine if the supplies have acted or are acting in compliance with applicable laws or regulations that the cabinet has the authority to enforce.

(a) Entry may include, for example, collection of water samples for laboratory analyses and inspection of records, files, papers, processes, controls, and facilities required to be kept, installed, or used under the provisions of 401 KAR Chapter 8.

(b) The cabinet or its authorized agent may cause to be tested a feature of a public water system, including its raw water source, to determine compliance with applicable legal requirements.

(17) Water treatment chemicals and system components. Chemical additives and protective materials, such as paints and linings, may be used by a water system if they meet the requirements established in the Recommended Standards for Water Works, 2012 Edition, A Report of the Water Supply Committee of the Great Lakes-Upper Mississippi River Board of State Public Health and Environmental Managers' Recommended Standards for Water Works, 2012.

(18) Disposal of chlorinated water. Chlorinated water resulting from disinfection of treatment facilities and new, repaired, or extended distribution systems shall be disposed in a manner that shall not violate 401 KAR 10:031.

(19) Water loading stations. A public water system that provides water loading stations for the purpose of providing water to water hauling trucks or other bulk water devices shall construct the stations to conform to the standards in the Great Lakes-Upper Mississippi River Board of State Public Health and Environmental Managers' Recommended Standards for Water Works.

Section 4. The cabinet shall maintain records and submit reports as established in 40 C.F.R. 142.14, 142.15, and 142.16(f).

Section 5. A public water system may receive a variance or exemption from some provisions of 401 KAR Chapter 8 only in accordance with 40 C.F.R. 141.4.

Section 6. A public water system may use noncentralized treatment devices only in accordance with 40 C.F.R. 141.100 or bottled water only in accordance with 40 C.F.R. 141.101.

Section 7. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) "Recommended Standards for Water Works, 2012 Edition," A Report of the Water Supply Committee of the Great Lakes-Upper Mississippi River Board of State Public Health and Environmental Managers, 2012; and

(b) "Annual Water System Data" form, DOW0801, (April 2017).

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at Division of Water, 300 Sower Boulevard, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m. This material is also available the division's Web site at <http://water.ky.gov>.

(3) The "Recommended Standards for Water Works, 2012 Edition," A Report of the Water Supply Committee of the Great Lakes-Upper Mississippi River Board of State Public Health and Environmental Managers, 2012, may also be obtained at <http://10statesstandards.com/waterrev2012.pdf>. (17 Ky.R. 588; 1425; eff. 11-15-1990; 18 Ky.R. 1170; 1845; eff. 11-26-1991; 20 Ky.R. 3015; 21 Ky.R. 313; eff. 8-24-1994; 27 Ky.R. 1552; 2511; 2732; eff. 4-9-2001; 31 Ky.R. 154; 740; 1090; eff. 1-4-2005; 35 Ky.R. 1517; 2010; eff. 4-3-2009; 36 Ky.R. 2088-A; 2321; eff. 6-3-2010; 37 Ky.R. 2924; 38 Ky.R. 508; eff. 10-7-2011; TAm eff. 7-8-2016; 43 Ky.R. 2043; 44 Ky.R. 206, 516; eff. 9-8-2017; Crt eff. 10-3-2018.)